ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2200 Churchill Road, Springfield, Illinois 62706 217/782-6760

J. 2

APPLICATION FOR PERMIT TO DEVELOP AND/OR OPERATE A SOLID WASTE MANAGEMENT SITE

In Accordance With The Environmental Protection Act

All information submitted as part of the Application is available to the public except when specifically designated by the Applicant to be treated confidentially as regarding a trade secret or secret process in accordance with Section 7(a) of the Environmental Protection Act.

APPLICATION MUST BE SUBMITTED IN DUPLICATE

RECEIVED
MAR 02 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

DO NOT WRITE IN THIS SPACE - FOR E.P.A. USE ONLY

_____ COUNTY - Land Pollution Control

_____ / _____ Region ____

Application Received: _____

Reviewed by: Geol. ( ) Eng. ( ) Other ( )

Preliminary Site Review: _____

Application Filed: _____ _____

_____ _____

Comprehensive Review Initiated: _____

Development Permit:
Granted _____ Denied _____

_____ _____ _____

Pre-operation Insp. _____

By: _____

Operating Permit:
Granted _____

Denied _____

Permit No. _____

PART I - APPLICANT INFORMATION

A. SITE IDENTIFICATION

1. Name of Applicant James D. Schoenhard
(Person responsible for operation)
Whiteside County Supt. of Highways and Landfill

2. Address of Applicant 18819 Lincoln Road, R. R. # 2
(Street, P. O. Box, or R. R. #)

Morrison (City) Illinois (State) 61270 (Zip Code)

Telephone: (815) 772-7651

Notification Sent
Per I. E. P. A. Act §39 (c)
MAR 3 1981
DLWPC

3. Name of Land Owner County of Whiteside
(If same as above, so indicate)

4. Address of Land Owner Board of Supervisors, County Court House
(Street, P. O. Box, or R. R. #)

Morrison | Illinois | 61270
City | State | Zip Code

5. Name of Site Whiteside County Landfill

6. Address of Site 18762 Lincoln Road
(Street, P. O. Box, or R. R. #)

Morrison | Illinois | 61270
City | State | Zip Code

Whiteside County | Mt. Pleasant Township

7. Land ownership (Check Applicable Boxes)

(X) Presently Owned by Applicant ( ) To Be Leased by Applicant For ____ Years
( ) To Be Purchased by Applicant ( ) ____ Years of Lease Remaining: termination date of lease ____

Operated by: Ill. Corporation ( ) Parternership ( ) Government (X)
Individual ( ) Other ( )

B. SITE BACKGROUND (Check Applicable Box or Boxes)

8. ( ) This is an existing operation begun ____ (mo.) ____ (yr.).
( ) This is a proposed operation.
(X) This is a proposed extension of an existing adjacent operation:
Illinois E.P.A. Permit No. 1973-19 : No Illinois E.P.A. Permit ( ).

PART II - LOCATION INFORMATION

A. ZONING AND LOCAL REQUIREMENTS

9. Present zoning classification of site A-1, agricultural.

10. Does present zoning of site allow the proposed usage? (X)Yes ( )No.

11. Restrictions (if any) None. A special use permit is granted for landfill use. The land is returned to agricultural use after landfilling.

12. Check applicable boxes which describe the use of adjacent properties surrounding site.

	Residential	Commercial	Industrial	Agricultural	Others*
a. North	( )	( )	( )	(X)	( )
b. East	( )	( )	( )	(X)	( )
c. South	( )	( )	( )	(X)	( )
d. West	( )	( )	( )	(X)	( )

*SPECIFY USE CLASSIFICATION ____

13. a. Are there any permits, operational requirements, licenses, or other requirements or restrictions by any municipality, planning commission, county, county health department, state agency, or other governing body? ( ) Yes (X) No If yes, list below._____

b. Have these requirements, licenses or restrictions been approved by the agency or governing body having jurisdiction? ( )Yes ( )No

c. If the answer to (b) is yes, include photocopies of supporting documents.

B. LOCATION

14. Attach a copy of the United States Geologic Survey (U.S.G.S.) topographic quadrangle map of the area which contains the site. (7.5 minute quadrangle, if published).

Quadrangle Map Provided: Morrison (15 minute) (Name) 1940 (Date)

See cover sheet of the plans.

15. a. Outline on the U.S.G.S. topographic quadrangle map the location and extent of the site.

See cover sheet

b. Provide a legal description of the site. (Typewritten on attached sheet.)

approx. 40 acres in _____ Quarter, SW Quarter, NE Quarter of Section 23, Township 21 N, Range 5 E of 4th P. M.

c. Provide State Plane coordinates of the southwest corner of the site, using the State Plane Coordinate System:

575,000 feet east, 1,867,700 feet north or origin, ( ) east zone (X) west zone

16. General characteristic: (Flood Plain, Hillside, Field, Strip Mine, Quarry, Gully, Gravel Pit, Swamp, etc.)
Briefly describe: Gently rolling farm land on well drained glacial drift deposits.

17. Plot the following information on the U.S.G.S. quadrangle topographic map, if within the site or adjacent to the outer perimeter of facility:

See Soils Report

a. Wells (domestic, industrial, etc.)
b. Public water sources (wells, stream, etc.)
c. Residences or residential areas, commercial facilities, sewage treatment facilities, industries, institutions, etc.
d. Other pertinent facilities not shown on topographic map such as diverted streams, strip mines, ponds, etc.

If scale of quadrangle map is not sufficient, show the above items on a separate topographic map (See Part IV - A - 23).

PART III - SITE CHARACTERISTICS

A. GEOLOGY - HYDROLOGY - See Soils Report

NOTE: The instructions for this Part of the Application should be read carefully prior to initiating the data-gathering program for the site.

Provide subsurface information in comprehensive detail, sufficient to allow for thorough evaluation of the hydrologic and geologic conditions beneath and surrounding the site. This data must fully describe the hydrogeologic interrelationships of the landfill facility, local ground waters, and surface waters. All information requested in sections 18 through 22 should be integrated and presented as a detailed hydrogeologic report.

B. GEOLOGY

GENERAL GEOLOGIC SETTING

18. Provide a brief description of the general geography of the region in which the site is located, and a summary of the hydrogeologic conditions typical of that portion of Illinois.

TYPE AND EXTENT OF SUBSURFACE MATERIALS

19. Provide a complete log (description) of each boring made during the exploratory program, and include all other pertinent data so obtained.

20. Include the following information regarding the bedrock, if encountered during the boring program:

    a. Depth(s) to bedrock.
    b. Lithology (physical character) and hydrologic characteristics of the bedrock formation.
    c. Name and age of the formations encountered during the boring operation and (or) which crop out on or adjacent to the site.

C. MATERIALS CLASSIFICATION AND ANALYSIS

21. Provide the following information for samples taken during the boring operation:

    a. textural classification (U.S.D.A. system)
    b. particle size distribution curves for representative samples
    c. coefficient of permeability - based on field and (or) laboratory determinations
    d. ion-exchange capacity and ability to adsorb and "fix" heavy metal ions

D. HYDROLOGY

22. Provide the following information regarding the hydrologic flow system in the area of the site:

    a. Depth to water in boreholes at time of boring completion and periodic measurements until the water level has stabilized.

b. Rate(s) and direction(s) of ground-water movement.
c. A narrative description (with diagrams) of the design and installation procedures for all piezometers installed at the site. This shall include both water-level measuring piezometers and those installed for permanent use as water-quality monitoring points.
d. An analysis of the background ground-water quality, as per those constituents listed in the Instructions. Attach a copy of the laboratory report.
e. An outline of the procedures, devices, and personnel to be employed for the collection of periodic ground-water samples from the monitoring point(s) installed at the site.

PART IV - CONSTRUCTION PLANS AND SPECIFICATIONS

A. SITE DEVELOPMENT PLAN

23. Provide a detailed topographic map of the existing site (Scale 1" = 200' or larger) showing 5-foot contour intervals on sites (or portions thereof) where the relief exceeds 20 feet, and 2-foot contour intervals on sites (or portions thereof) having less than 20 feet of relief. This map should show all buildings, ponds, streams, wooded areas, bedrock outcrops, underground and overhead utilities, roads, fences, culverts, drainage ditches, drain tiles, easements, streets, any other item of significance, including legal boundaries.

    Show the location and elevation of borings as described in Part III - 19, 20.

24. Provide a separate map, at the same scale as that above, of the developed site showing the following:

    a. All changes in topography dictated by design and operational factors.
    b. All surface features (as specified in IV - A - 23) both unaltered and modified, and installed as part of the facility. This shall include all new construction with location plans for berms, dikes, dams, earth barriers, surface drainage ditches, drainage devices (culverts, tiles), fencing, access roads, entrance(s), utilities, buildings, sanitary facilities, monitoring well(s), streams, ponds, mines, and any other special construction as may be required to comply with the provisions of the Rules and Regulations.

25. Provide a topographic map of the closed and covered site showing final contours, with an interval of 5 feet if relief is greater than 20 feet, and intervals of 2 feet if relief is less than 20 feet.

26. Provide cross sections or profiles (Scale 1" = 200' or larger) of the developed site to clearly indicate: (Minimum of three cross sections recommended)

    a. Proposed fill areas
    b. Sequence of placement and total compacted thickness of each lift
    c. Thickness of cover material for each lift
    d. Slope and width of working face for each lift
    e. Slope of completed fill with final cover in place
    f. Subsurface strata to a minimum depth of thirty feet below the base of the fill material
    g. Earth barriers, berms, dikes and other barriers, including essential dimensions of each

27. Provide plan views (Scale 1" = 200') and cross sections of the leachate collection and treatment system, if utilized, including the following information: No applicable

a. Type, location and construction of subsurface collection system, and all attendent devices.
b. Location, size, depth, volume, and surface elevation of treatment lagoon(s), if used.
c. Detailed written narrative of the method and processes of the treatment system, and program for monitoring the performance and effectiveness of the treatment system.
d. Discharge point(s) of effluent.

B. SCHEDULE OF CONSTRUCTION - See Attachment B

28. Attach a typewritten narrative supplemented by indications on the plans of the sequence of areas to be filled. Estimate the date of beginning and ending of each phase of construction and operation.

C. CONSTRUCTION REQUIREMENTS

29. Attach a typewritten narrative supplemented by indications on the plans of provisions to be made for:

a. Prevention of surface-water pollution.

b. Control of gas migration.

c. Elimination of flood hazard, if any.

d. Employee facilities.

e. Access to the site.

f. Measuring quantity of solid waste delivered to the site.

PART V - OPERATING PLAN

A. SOURCE AND VOLUME

30. Indicate the estimated volume of each of the following sources and types of solid waste the facility will handle during each day of operation; each week of operation; each year of operation. Specify any additional information regarding refuse source and volume.

	SOURCE	TYPE		DAILY VOL.	WEEKLY VOL.	ANNUAL VOL.
a.	Residential	Domestic Refuse	95%	570	2850	148,200
b.	Commercial	Trash, Paper, Wood, Plastic & Glass	3%	18	90	4,680
c.	Industrial	Paper, Wood, Trash & Grit, Plastic, Concrete, & Glass	2%	12	60	3,120
d.	Agricultural					
e.	Other (Describe)					
	TOTAL			600	3000	156,000

Units are cubic yards

31. At the above projected rate of use, what is the expected useful life of the facility? 6 years

32. Will water treatment or wastewater treatment sludge be accepted at the facility? ( )Yes (X)No. If the answer is yes, all pertinent information requested in Part VI of the Application form must be provided.

33. If "hazardous wastes" (other than waste water sludges) will be accepted at the facility, list these wastes, provide a complete chemical analysis of each, and attach a detailed description of the special procedures to be used for their disposal at the facility. No hazardous wastes accepted.

B. DESCRIPTION OF OPERATING PROCEDURES See Attachment B

34. Attach a typewritten plan of operation to accompany this application. This plan should include the following subjects:

a. Method of landfilling (trenching, area fill)
b. Time schedule for filling and daily covering

C. OPERATING REQUIREMENTS

35. Attach a typewritten description of provisions for:

a. Personnel for supervision and operation
b. Traffic control
c. Designation of unloading area
d. Cell size and construction
e. Provisions for blowing litter control
f. Rodent control
g. Fly control
h. Bird control
i. Dust control
j. Odor control
k. Management of surface water
l. Erosion control
m. Final cover and final slopes
n. Monitoring program for gas
o. Reuse and recycling operations
p. Monitoring program for groundwater (See Part III - D - 22)

36. Provide a list of equipment to be used for the landfill operation:

ITEM(S)	MODEL NUMBER	NO. OF UNITS IN OPERATION	DESCRIPTION
Endloader	966 Cat.	1	Rubber tired end loader/compactor with foam-filled tires (50,000 lbs.)
Dragline	60D Northwest	1	2 Cu. yd. machine, 60' boom
STANDBY UNITS AT COUNTY HIGHWAY GARAGE			
Endloader	125 Michigan	1 standby	Rubber tired loader/compactor with foam-filled tires (50,000 lbs.)
Endloader	955K Cat.	1 standby	track end loader (30,000 lbs.)

PART VI - ON - SITE SLUDGE DISPOSAL

The information requested in this Part of the Application form must be provided only if water treatment or wastewater treatment sludge is proposed to be accepted for disposal at the site. No sludges are accpeted.

37. Indicate the type of sludge to be accepted at the facility for ultimate disposal:

( ) Water treatment
( ) Wastewater treatment

( ) municipal	( ) filter cake	( ) raw
( ) industrial	( ) sludge cake	( ) digested
( ) combined	( ) heat-dried	

38. Provide a brief narrative of the wastewater or water treatment processes and operations utilized at the treatment facility generating the sludge in question.

39. Provide a brief narrative of the sludge de-watering and (or) sludge drying operations utilized at the treatment plant. What is the expected solids content (by weight) of the processed sludge? _____

40. If industrial or combined wastewater sludges are proposed to be deposited at the site, provide a comprehensive chemical analysis of same. Attach a copy of the laboratory report as part of the Application. Provide a brief description of the manufacturing process(es) which results in the generation of the industrial wastewater including all chemical reagents used during such processing.

41. Provide a reasonable estimate of the projected volume of processed sludge to be deposited at the site on a unit time basis. Specify any additional information regarding sludge generation. Not applicable.

SOURCE	WEEKLY VOLUME	MONTHLY VOLUME	ANNUAL VOLUME	OTHER INTERVAL	INTERVAL
A. Municipal					
B. Industrial					
C. Combined					

42. Provide a brief statement describing the method of sludge conveyance to the refuse disposal site from the treatment facility. This shall include an attached typewritten list of equipment and personnel to be used for sludge handling and transport.

43. Outline in a concise statement the operational procedures to be used on-site to properly and expeditiously dispose of the sludge at the operational portion of the facility. Describe the provisions to be made available for an odor control program if nuisance conditions arise from the disposal of raw or partially digested sludges.

44. Attach a typewritten description supplemented by indications on the plans of provisions for final grading and, if applicable, revegetation of the completed landfill areas. State what arrangements will be made for the repair of eroded, cracked and uneven areas, and any other maintenance of the site until its pollution potential is adjudged exhausted. See Attachment B

45. By signature affixed to this Application for Permit the Applicant affirms his intent to record description and plan of the completed site with the county official responsible for maintaining titles and records of the land, in accordance with the Rules and Regulations of this Agency, if granted a Development and/or Operating Permit.

I hereby affirm that all information contained in this Application is true and accurate to the best of my knowledge and belief.

Signature of Applicant: J. D. Schlenk P.E. 3/2/81
County of Whiteside, Supt. of Highways and Landfill Date

Attest: _____ _____
Date

Signature of Engineer: Gary L Ebersole 2-27-81
Gary L. Ebersole, P.E. Date
62-35651

GARY L. EBERSOLE 62-35651 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Illinois Reg. No.: _____

Attest: _____ _____
Date

(SEAL)

Signature of Land Owner: _____ 3/2/81
County of Whiteside - Chairman, Board of Supervisors Date

Attest: _____ _____
Date

Signature of other person, technical and non-technical, who has supplied data contained in the submittal.

_____ _____
Robert N. Leslie, P.E. Signature Date

62-26421 Chief Soils Engineer
Reg. No., Position, Title, Etc.

ROBERT N. LESLIE 62-26421 REGISTERED PROFESSIONAL ENGINEER (Seal) OF ILLINOIS

_____ _____
Signature Date

_____
Reg. No., Position, Title, etc.

(Seal)

ATTACHMENT A

The Southwest Quarter of the Northeast Quarter of Section 23, also all that part of the West Half of the Southeast Quarter of said Section 23 lying North of the right-of-way of the center State Bond Issue Route No. 6 excepting from the last above described tract one acre conveyed by Archibald Knox to Whiteside County for a public cemetery and described as follows, to-wit: Commencing at a point on the South side of the road leading from Unionville to Empire 16 rods from the Northeast corner of the Northwest Quarter of the Southeast Quarter of said Section 23; thence Northwesterly along said road 10 rods; thence South 16 rods; thence Southeasterly parallel with said road 10 rods; thence North 16 rods to the place of beginning. All being in Township 21 North, Range 5 East of the Fourth Principal Meridian, also excepting from the foregoing the following described tract: A tract of land in the Southeast Quarter of Section 23, in Township 21 North, Range 5 East of the Fourth Principal Meridian, described as follows, to-wit: Beginning at the Northeast corner of Section 23, and running thence West 1334.1 feet, and running from thence South and adjoining the West boundary of the East Quarter of the aforesaid Section 23, 2869.5 feet to the center of State Bond Issue No. 6 which runs in an Easterly and Westerly direction through said Section 23; and running from thence North, 74°-51' West, 145.65 feet to a point in the center of said Route No. 6, which last mentioned point is the place of beginning of the tract of land herein described and conveyed; thence North 74°-51 West, 133.65 feet to a point which is North 16°-7' East, 31.5 feet from a lime stone with a cross cut on its top; thence from this point South 16°-7' West, 310.2 feet to a large lime stone with a cross cut on its top; thence South 82°-3' East, 186.2 feet to the Southwest corner of the Old Cemetery Grounds, and thence North 6°-5' East, 290.8 feet to the place of beginning, all situated in Section 23, Township 21 North, Range 5 East of the Fourth Principal Meridian, Whiteside County, Illinois, exclusive of building, grounds and area.

PART IV - CONSTRUCTION PLANS AND SPECIFICATIONS

B. SCHEDULE OF CONSTRUCTION:

28.a The landfill site is made up of areas that shall be developed in phases. As one area is filled, the next will be made ready for operation. The phases are shown on the plans.

28.b Estimated dates for progress thru each phase of operation are as follows:

Satisfactory groundwater monitoring requirements, background sample analysis	April 1981
Receive pre-operation inspection and operation permit from IEPA. Begin operation in Trench No. 1	May 1981
Begin operation in Trench No. 5	May 1983
End operation in Trench No. 12	May 1987
Complete final grading	August 1987

28.c The equipment to be used for each operation is listed and described under Item No. 36. (1) The endloader will be used to push refuse into the working face of each cell, help compact the refuse in each cell, to place daily cover on each cell, to spread final cover on the top lift of each filled area. (2) The dragline will be used for excavation of cover material, for placing cover material next to refuse deposits or stockpiling, for placing final cover on the top lift of each area, and for cutting or filling as needed to modify drainage around the sides of some trenches. (3) Optional equipment may be used by the County to improve operation as they see fit - such as an additional endloader compactor to compact the refuse placed in each cell, and a backhoe to excavate or help place cover material on the filled areas.

28.d Traffic control is aided (1) by use of gates at entrances from the highway (U.S. 30) along the south part of the site and, (2) signs posted for haulers to follow to the office trailer, and to the unloading area.

28.e Hours of operation are 8 A.M. to 4 P.M. Monday thru Friday.

28.f (1) Daily cover shall be placed at 6" minimum, but 12" average compacted thickness is recommended in order to utilize most of the excavated material. Daily cover shall be placed over the compacted refuse (at 7 ft. height) to make the total height of the lift 8 feet. The cell shall be completely enclosed by the cover at the end of each working day.

(2) Final cover shall be placed over the top lift of cells to make a minimum of 2 feet thickness above the refuse. In order to utilize most of the excavated material, 4 to 5 ft. layer of final cover is recommended to be placed above the top lift of refuse and daily cover. Final cover shall be placed as soon as possible (but not later than 60 days) after the refuse is placed in the final lift. Topsoil is stockpiled separately to be placed on the top 12" of the final cover.

28.g Each cell shall be 100 feet wide across the working face, 7 feet high as compacted by a dozer or compactor (before daily cover is placed) and approximately 20 to 25 feet long typical for a volume of 600 cubic yards per day.

28.h Vectrol control will be achieved primarily by daily cover procedure. If outside services appear necessary for insect or rodent control, the County will use its best judgment.

28.i To prevent erosion of cover material, the cover layers will be compacted in place to reduce loss of daily cover and final cover will be seeded with a soil holding legume mixture during the planting season following completion of each area that becomes ready for seeding. After 5 years of alfalfa-hay, the land will be used for corn production.

28.j The surveying capability of the County Highway Office can keep control on the alignment of the trenches by staking. Depth of trenches can be measured by level and level rod (grade pole). The trenches will confine the refuse placed below grade and serve as an indication of width of the areas to be filled above original ground surface.

28.k Samples may be taken from a piezometer (monitoring well) by the County and tested to check for the influence of any leachate that may be found. The results can be compared to the samples taken continuously for the existing landfill, which is up gradient from the proposed landfill site. Background samples on Wells W9 and W12 as soon as the IEPA concurs.

28.1 Final cover shall be silt loam material compacted. Vegetation such as a soil-holding type legume mixture can be selected by the County and seeded on the final surface when each area is completed. Suitable topsoil should be stripped from the site, stockpiled and spread to give a firm 12" to 24" thickness for seedbed prior to seeding. Any bare spots should be topsoiled again and reseeded. Grass areas can be clipped or mowed 2 or 3 times each summer.

PART IV - CONSTRUCTION PLANS AND SPECIFICATIONS

C. CONSTRUCTION REQUIREMENTS:

29.a Prevention of surface-water pollution:

Berms and ditches are made alongside the landfill trenches to prevent surface runoff from entering the working areas. Daily cover prevents rainfall from passing thru the refuse. A small berm should always be placed alongside the refuse to keep any runoff from entering the refuse before the daily cover can be placed. Rain that falls on the haul roads and turning spaces in the landfill seeps away thru silty soils.

29.b Control of gas migration:

Placement of daily cover to keep each cell sealed off separately is the primary method to enclose any gases that form within the cells. Installation of a vent is not recommended.

29.c Elimination of flood hazard:

No danger of flooding exists. Small drainage areas relieved by ditches are isolated from the landfill.

29.d Employee Facilities:

An office trailer is provided for the site attendant and equipment operators. The trailer is heated for winter operation. A portable toilet, having regular disposal service, is located near the trailer.

29.e Access to the Site:

U.S. Route 30, concrete pavement.

29.f Measuring Quantity of Solid Waste Delivered to the Site:

The site attendant registers each load of refuse as it is delivered to the site. Each hauler has each vehicle measured for cubic yard capacity and noted whether such volume is compacted or not. Charges are made for each load that is delivered by volume and whether compacted. Record is kept of the volumes and fees for each day of operation.

PART V - OPERATING PLAN

B. DESCRIPTION OF OPERATING PROCEDURES:

34. a. Method of Landfilling

The trench method will be used primarily for depositing the domestic refuse on this site is a continuation of the present operation. In addition, some areas will be landfilled above the original grade using the area method in combination with the trench method as described herein:

1. Operation begins in Trench One as shown on the plans starting at the west end of Trench One.

2. Topsoil of 12" to 24" thickness is stripped and stockpiled using the dragline, placed on south side of trench.

3. Silt material of 3 to 4 feet thickness is excavated with dragline and stockpiled separately to be used as final cover and base for topsoil. Stockpile for final cover is placed on south side of trench and separate from topsoil.

4. Remaining silt material is excavated to the planned depth of excavation, usually an additional 10 feet, and stockpiled on the north side of the trench.

5. As the trench is opened up the stockpiles serve to prevent surface runoff from entering the trench.

6. In addition, shallow ditches may be cut with the endloader bucket or with a backhoe to provide drainage (if needed) along the outside edge of the stockpiles.

7. When the trench has 200 feet ±50 feet opened up, refuse may be placed at the west end and compacted in 7 ft. lifts.

8. Cell size is 7 ft. ht. x 100 ft. wide x 20 to 25 ft. long in the trench.

9. Daily cover of 12" to 18" thickness (also serves as intermediate cover when needed) is placed on top of the refuse to provide a height of 8 feet for the covered lift.

10. One cell is placed on the bottom of the trench in this manner by unloading refuse from the top of the trench.

11. Special provision for unloading refuse at the top of the trench for this landfill site is made because of soil conditions in the trench. Soils are unable to support the wheel loads of trucks hauling refuse in the bottom of trench. The only way of operating successfully on the soft silty soil is to deposit from the trucks at the top of the trench. The rubber-tired endloader can efficiently move the refuse and compact it in place at the bottom of the trench and keep the working face of the deposit fairly flat (approx. 3 to 1 slope) to provide workability and compaction. During wet weather and following periods, the bottom of the trenches takes considerable time to dry out making this operation of unloading at the top of the trench the only practical solution. This procedure has been carried out successfully for the past operation of the site and will be continued.

12. The second cell is placed on top of the first and the working face is sloped back away from the lower edge. Trucks then drive over the compacted and covered second cell which is at the original ground level.

13. Progress advances thru the trench from west to east in this manner with a "stair step" working face for the lower lift advancing ahead of the upper lift.

14. In the areas where fill can be placed above the original grade, a berm will be built along the south and west edges of the trench and refuse will be placed against it and compacted to a height of 7 feet.

15. Where the area requires refuse thickness of over 7 feet, then two lifts each of one half the total thickness needed will be placed, compacted and covered with 12" cover material while advancing through the trench.

16. Excavated material on the north side of the trench being used for daily (and intermediate) cover will be depleted as the trench and top area above the trench is filled. Left over material can be

hauled away for use elsewhere or placed on top of the covered refuse as final cover.

17. Excavated material on the south side of the trench will be placed over the finished Trench One, including the lift on the top area.

18. Trench Two will be excavated and operated in the same manner as Trench One. Topsoil can be stripped from above Trench Two and placed directly on the completed Trench One. Endloader can spread and level the topsoil layer.

19. Topsoil from Trench One can be left in stockpile to be added to the entire area above Trenches One, Two, Three and Four when they are completed.

20. Trenches Three and Four will be operated in a similar manner, advancing from west to east. Note that depth of trenches requires only one lift in the trench and no lifts are needed above ground surface to meet the final grade.

21. When Trenches One thru Four are completed, topsoiling can be finished, using topsoil along the south side of Trench One. Seed bed can be prepared for alfalfa-hay cropping the following year.

22. Operation can begin in Trench Five and followed throughout Trenches Six thru Twelve in the manner described below.

23. Begin Trench Five at the east side and proceed toward the west.

24. Stockpile topsoil, 12" to 24" thickness, on the north side separately.

25. Stockpile silt soil material of 3 to 4 feet thickness on the north side separate from the topsoil.

26. Excavate remaining silt material to the elevation shown on the plans and stockpile on the south side.

27. Use the same procedures for placing refuse, compacting, and covering as described above for Trench One.

28. Place stockpiled material from south side onto refuse for daily cover. Excess material may be hauled away or used for an extra thick layer of final cover.

29. Place the final cover over the completed trench and area from stockpiled material on the north side of trench.

30. Place topsoil from the next trench (on south side) on top of the completed trench and spread evenly.

31. Place topsoil from Trench Five over the entire area of Trenches 5 thru 12 when the entire site is completed.

32. Provide seedbed preparation and raise alfalfa-hay for the following year on south areas.

33. Prepare to raise corn on the north area, which has been producing alfalfa for several years.

34. b. Time Schedule for Filling and Daily Cover

The landfill is open from 8 A.M. to 4 P.M. Monday thru Friday. Spreading and compacting is done as each load is delivered and deposited. Daily cover is done thru the day staying approximately 10 feet behind the working face and is completed over the entire cell by the end of the working day.

PART V - OPERATING PLAN

C. OPERATING REQUIREMENTS:

35. Descriptions of Various Provisions

a. Personnel:

Job Title	Duties
One Site Attendant	Record volume of each load, collect or charge fees, direct haulers to deposit.
One Equipment Operator	Operate dragline: excavate area for landfilling, place daily cover material along one side of trench and final cover material on the opposite side. Optional Backhoe Operation: Use backhoe to excavate material, place daily cover or place final cover.
One Equipment Operator	Operate endloader compactor: Place refuse in cell at its working face and compact it in place, spread daily cover and compact it in place, spread final cover and compact it in place.

b. Traffic Control:

Signs mark the entrance to the landfill site. Attendant at the office trailer directs haulers to deposit area. Barricades can close off haul roads not in use. Gate to the site is closed during hours the site is closed.

c. Attendant at the office trailer directs haulers to the deposit area.

d. Cell Size:

Working face is 100 feet wide, height is 7 feet refuse and 1 foot daily cover for 8 feet overall, length is proportional to volume with typical day being 600 cubic yards at 20 to 25 feet long.

e. Provisions for Blowing Litter Control:

Temporary chicken wire fence will be used as needed near the deposit area to trap blowing paper. Between loads, the dozer operator can pick up litter and place into the cell for compaction.

f. Rodent Control:

Use of rodenticide such as Rat-Killer may be used where needed by the County. Regular daily cover should prevent any population of rodents from developing. (Similarly insects and birds are discouraged).

g. Fly Control:

Insecticide may be used by the County at their discretion.

h. Bird Control:

Prevent any waste material from laying exposed along haul roads. Pick up any litter and deposit into cells of refuse daily and cover.

i. Dust Control:

The County may use a water truck during dry summer months to spray haul roads and reduce dust problem.

j. Odor Control:

Daily cover will prevent odors from leaving the refuse deposited in each cell.

k. Management of Surface Water:

The site naturally drains to the two opposite corners southwest and northeast. Small berms or ditches can be placed along trenches as needed.

l. Erosion Control:

The side slopes and working face of each cell shall be on 2:1 slopes and daily cover will be compacted on the same 2:1 slopes. The final cover will be placed

on the top of each trench of the landfill. Topsoiling and reseeding during the next planting season following the placement of the final cover, will provide a soil-holding legume-hay cover to prevent erosion.

m. Final Cover and Final Slopes

Topsoiling, seedbed preparation, and seeding with a soil-holding mixture will be provided on all slopes of the landfill as they are completed. Seeding will be done in the spring or fall season after the final cover is placed on completed portions of the landfill.

n. Monitoring Program for Gas:

Operating personnel shall keep notice of any cracks in the surface that may be venting gases from the refuse. In general, the daily cover should keep any gases from migrating to other cells. No need for vent pipes exists because the gases should be contained safely in the individual cells.

o. Reuse and Recycling Operations:

None are planned at this time.

p. Groundwater monitoring shall be carried out on a quarterly basis from the piezometers installed on the site. Sampling shall be continued from the piezometer (W12) furthest down gradient from the landfill, which is near the southwest corner. Other monitoring shall be carried out as the IEPA directs in the future.

LAND USE INFORMATION - RESPONSE TO EIGHT QUESTIONS

APPLICATION FOR PERMIT TO OPERATE

A SOLID WASTE MANAGEMENT SITE
PROPOSED EXTENSION OF WHITESIDE COUNTY LANDFILL
IEPA NO. 1973-19, LEE COUNTY, ILLINOIS

1. The existing landfill and its proposed extension are located in a site which minimizes any temporary scenic blight caused by the landfill. The entire surrounding area is used for agricultural production.

   The landfill site is remote from residences. No historical or archeological sites are known in the landfill environs. No areas of significant natural beauty are nearby. The existing "natural" surroundings are used rather intensively for farming. The landfill avoids damage to any of its surroundings.

2. The location of the landfill avoids hazards to public health and safety and minimizes any offenses to the senses of people in a mile zone around the landfill. Approximately 14 residences are located within this zone. One residence is within a one half mile radius. Both County Highway and County Health offices are within one half mile.

3. As described above, the land uses in the area surrounding the landfill are agricultural. Local comprehensive plans and zoning ordinances make the area all AG-1.

   The County of Whiteside owns the land for the landfill which is allocated for the existing landfill and proposed extension of landfill operations. The adjoining property to the east is owned by Whiteside Farm Home and Carroll F. Meyer; to the north by David A. Bush; to the west by Leo M. Knox in care of Kenneth Tenboer; and to the south by Ernest A. Rosenow.

   The landfill is quite compatible with the character of the surrounding area and is located to enhance local planning and zoning requirements. The landfill operation replaces the topsoil on the final cover and returns the land to agricultural production (with alfalfa-hay mixture, then corn).

4. The landfill is located so as to avoid any substantial depreciation of nearby property. As stated above the surrounding property is compatible with the landfill, and its value is not decreased appreciably.

factor philosophy?

5. The need for a landfill in the Morrison, Sterling, Rock Falls and surrounding communities far outweighs any detriments possibly caused by providing a landfill. The need for a landfill in this area has already been established by the continued demand for the existing landfill since 1972. This application requests that the operation be continued on the adjoining property owned by the County. With the County's ownership, the landfill operaton has been the primary goal in long range planning for the best service to the public. An area is served of approximately 20 miles in radius from the landfill site, which service would be extremely difficult to replace.

6. As shown completely in the landfill application, the landfill avoids adverse effects on the existing air and water quality.

7. The technical and economic factors, which are essential to the landfill operation, make the location of the landfill (existing and proposed extension) ideally suited to serve as a solid waste disposal site. The site itself is geologically and hydrologically advantageous to use as a sanitary landfill. The location is within relatively close proximity to the populations that it serves. The roadway access for truck transportation to and from the site is extremely adequate. The landfill site is highly suited to continue to be used for the disposal of solid waste.

8. Access roads and bridges are not limited to preclude necessary vehicular traffic to the landfill site. All municipal, county, local planning and zoning officials, adjacent property owners and state legislators have been notified of the intent to extend the landfill operation.